

**AMENDMENTS TO THE CLAIMS:**

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

**Listing of Claims:**

1. (Currently Amended) A method for enabling ~~the~~ an introduction of a 200kHz GSM-type network into a TDMA system having a bandwidth that is substantially less than a 2.5MHz bandwidth normally employed for GSM-type networks, comprising the steps of:

providing a 52-multiframe containing 12 blocks of four consecutive frames, two idle frames, and two channels used for control channel purposes, said frames comprising a number of timeslots; and

rotating control channels belonging to a serving time group over every other timeslot number.

2. (Currently Amended) ~~★ The~~ The method as in claim 1, wherein the rotation occurs over odd timeslot numbers as 7, 5, 3, 1, 7, 5,..., etc., and where the rotation occurs between frame numbers  $(FN) \bmod 52 = 3$  and 4.

3. (Currently Amended) A method ~~as in claim 1~~ to enable an introduction of a 200kHz GSM-type network into a TDMA system having a bandwidth that is substantially less than a 2.5MHz bandwidth normally employed for GSM-type networks, comprising:

providing a 52-multiframe containing 12 blocks of four consecutive frames, two idle frames, and two channels used for control channel purposes, each of said frames comprising a number of timeslots; and

rotating control channels belonging to a serving time group over every other timeslot

number,

wherein a mapping of the control channels on timeslot numbers is defined by the following formula:

For  $0 \leq \text{FN} \bmod 52 \leq 3$ ,  $\text{TN} = ((6 \times ((\text{FN} \div 52) \bmod 4)) + 1 + (2 \times \text{TG})) \bmod 8$ ; and

For  $4 \leq \text{FN} \bmod 52 \leq 51$ ,  $\text{TN} = ((6 \times ((\text{FN} \div 52) \bmod 4)) + 7 + (2 \times \text{TG})) \bmod 8$ ,

where TG is a time group value.

4. (Currently Amended) ~~A~~ The method as in claim 1, wherein information specifying at least the rotation direction is signalled to the mobile station in a downlink synchronization channel.

5. (Currently Amended) A wireless TDMA digital communications system, comprising:

at least one mobile station; and

a plurality of base transceiver stations individual ones of which are capable of transmitting packet data to, and receiving packet data from, said mobile station using a 52-multiframe, said frames comprising a number of timeslots, wherein individual ones of said base transceiver stations rotate the transmission of control channels belonging to a serving time group over every other timeslot number for enabling said mobile station to perform reselection measurements on neighboring base transceiver stations without dropping traffic.

6. (Currently Amended) ~~A~~ The system as in claim 5, wherein the rotation occurs between frame numbers  $(\text{FN}) \bmod 52 = 3$  and 4.

7. (Currently Amended) A wireless TDMA digital communications system ~~as in claim~~

5, comprising:

at least one mobile station; and

a plurality of base transceiver stations individual ones of which are capable of transmitting packet data to, and receiving packet data from, said mobile station using a 52-multiframe, said frames comprising a number of timeslots, wherein individual ones of said base transceiver stations rotate the transmission of control channels belonging to a serving time group over every other timeslot number for enabling said mobile station to perform reselection measurements on neighboring base transceiver stations without dropping traffic.

wherein a mapping of the control channels on timeslot numbers is defined by the following formula:

For  $0 \leq \text{FN mod } 52 \leq 3$ ,  $\text{TN} = ((6 \times ((\text{FN div } 52) \text{ mod } 4)) + 1 + (2 \times \text{TG})) \text{ mod } 8$ ; and

For  $4 \leq \text{FN mod } 52 \leq 51$ ,  $\text{TN} = ((6 \times ((\text{FN div } 52) \text{ mod } 4)) + 7 + (2 \times \text{TG})) \text{ mod } 8$ ,

where TG is a time group value.

8. (Currently Amended) ~~A~~ The system as in claim 5, wherein information specifying at least the rotation direction is signalled to the mobile station in a downlink synchronization channel.

9. (Currently Amended) ~~A~~ The system as in claim 5, wherein the rotation of the control channels occurs in odd timeslot numbers as 7, 5, 3, 1, 7, 5,..., etc.

10. (New) A network component of a wireless TDMA communications system, comprising circuitry to transmit information to a mobile station using a 52-multiframe, where frames comprise a number of timeslots, said circuitry operating to rotate the transmission of a

control channel belonging to a serving time group over odd timeslot numbers as 7, 5, 3, 1, 7, 5,..., etc., where the rotation occurs between two predetermined frame numbers (FNs).

11. (New) The network component of claim 10, where the rotation occurs between FNs mod 52 = 3 and 4.

12. (New) A network component of a wireless TDMA communications system, comprising circuitry to transmit information to a mobile station using a 52-multiframe, where frames comprise a number of timeslots, said circuitry operating to rotate the transmission of a control channel belonging to a serving time group over odd timeslot numbers as 7, 5, 3, 1, 7, 5,..., etc., where the rotation occurs between two predetermined frame numbers (FNs), and where a mapping of the control channels on timeslot numbers (TNs) is defined by:

For  $0 \leq \text{FN mod } 52 \leq 3$ ,  $\text{TN} = ((6 \times ((\text{FN div } 52) \bmod 4)) + 1 + (2 \times \text{TG})) \bmod 8$ ; and

For  $4 \leq \text{FN mod } 52 \leq 51$ ,  $\text{TN} = ((6 \times ((\text{FN div } 52) \bmod 4)) + 7 + (2 \times \text{TG})) \bmod 8$ ,

where TG is a time group value.

13. (New) A mobile station for use in a wireless TDMA communications system, comprising circuitry to receive information from a 52-multiframe, where frames comprise a number of timeslots, said receive circuitry operating to synchronize to the rotation of the transmission of a control channel belonging to a serving time group over odd timeslot numbers as 7, 5, 3, 1, 7, 5,..., etc., where the rotation occurs between two predetermined frame numbers (FNs).

14. (New) The mobile station of claim 13, where a mapping of the control channels on timeslot numbers (TNs) is defined by:

For  $0 \leq \text{FN mod } 52 \leq 3$ ,  $\text{TN} = ((6 \times ((\text{FN div } 52) \bmod 4)) + 1 + (2 \times \text{TG})) \bmod 8$ ; and

For  $4 \leq \text{FN mod } 52 \leq 51$ ,  $\text{TN} = ((6 \times ((\text{FN div } 52) \bmod 4)) + 7 + (2 \times \text{TG})) \bmod 8$ ,

where TG is a time group value.